

REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicants respectfully submit that the pending claims comply with 35 U.S.C. §§ 101 and 112, are not anticipated under 35 U.S.C. § 102 and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicants will now address each of the issues raised in the outstanding Office Action.

Rejections under 35 U.S.C. § 101

Claims 1, 2, 5-15, 18-41, 83, 84 and 86-88 stand rejected under 35 U.S.C. 101, as being directed to non-statutory subject matter. The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

These claims have been amended to be more clearly directed to statutory subject matter.

**Rejections under 35 U.S.C. § 112**

Claims 2-4, 12, 13, 15-17, 25, 26, 28-30, 38, 39, 43-45, 53, 54, 66, 67, 69-71, 79 and 80 stand rejected under 35 U.S.C. § 112, ¶ 2 as being incomplete for omitting essential elements. The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 3, 4, 16, 17, 44 and 45 have been canceled in the entered after-final amendment filed on May 14, 2007, this ground of rejection is rendered moot with respect to these claims.

The Examiner cites MPEP § 2172.01. MPEP § 2172.01 states, in pertinent part:

A claim which omits matter ***disclosed to be essential to the invention*** as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements ***described by the applicant(s) as necessary to practice the invention.*** [Emphasis added.]

The applicants will refer to this test in addressing the Examiner's rejection.

Regarding claims 2, 15, 28-30, 43 and 69-71, the Examiner contends that there appears to be a missing step of ***targeting*** or ***serving*** advertisements. (See Paper No. 20061008, page 2.) However, neither targeting, nor

serving, are essential steps. As the specification states:

The present invention may involve novel methods, apparatus, message formats and/or data structures for **suggesting** and/or **providing** keywords used to target ads (referred to as "targeting keywords"). [Emphasis added.]

Page 8, lines 10-12. This can be done before an advertisement is ever served. For example, the specification further states:

For advertisers with **new campaigns**, the advertiser can enter ad information, such as a creative for example. The keyword facility may use this entered information as seed information to infer one or more categories. It may then request that the advertiser confirm or deny some basic feedback information (e.g., categories, Webpage information, etc.). For example, an advertiser may be provided with candidate categories and may be asked to confirm (e.g., using checkboxes) which of the categories are relevant to their ad. In one embodiment, the ad server system may then automatically provide keywords to the advertiser for its ad. [Emphasis added.]

Page 6, lines 13-21. Moreover, the independent claims from which these claims depend, determine targeting keywords (or serving constraints) which may be provided, perhaps subject to advertiser approval or qualification testing.

In any event, since the applicants have described that the keywords or serving constraints may be provided to an advertiser when they are setting up a new ad

campaign, acts of targeting ads or serving ads are clearly not described as being essential to the practice of the invention by the applicants. Therefore, the applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

Furthermore, independent claims 1, 27, 42 and 68, as amended, recite ***controlling the serving of the advertisement using stored targeting keywords.***

Regarding claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80, the Examiner contends that it is unclear how "unused inventory" and "unused ad spots" are determined, and recommended language reciting how such a determination might be made. Although these claims were amended to clarify what is meant by an "unused ad spot," the applicants declined to amend the claims as proposed by the Examiner because the claims do not require "***determining***" unused ad spots or unused inventory. As one example, such information might already be available and simply accepted. For example, the specification states:

In one embodiment of the present invention, the keyword suggestion/provision operations 460 ***may use*** unused inventory information 455 in its determination of keywords. For example, such unused inventory information 455 may associate keywords with a number of unused ad spots over a period of time. Generated targeting keywords 465 may be ordered based on number of unused ad spots associated with the keywords. In this way, keywords that, if used as targeting keywords, would fill many otherwise

unused ad spots may be preferred over those that would fill few otherwise unused ad spots. [Emphasis added.]

Page 19, lines 23-30. Thus, some embodiments might *use* unused inventory information. Although the specification does describe how such unused inventory information might be determined (See, e.g., page 20, lines 1-15.), the applicants never indicated that such a determination is necessary or essential.

Since the applicants have demonstrated that **determining** unused ad spots or unused inventory is not an essential or necessary act of the invention, the applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

**Rejections under 35 U.S.C. § 102**

Claims 1, 3-10, 14, 16-23, 27, 29-36, 40-42, 44-51, 55, 59-64, 68, 70-77, 81-84 and 86-88 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0055816 ("the Paine publication"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 3, 4, 16, 17, 40, 41, 44 and 45 have been canceled in the entered after-final amendment filed on May 14, 2007, this ground of rejection is rendered moot with respect to these claims.

Various patentable features of the claimed invention will be described below with respect to separate groups of claims. The Paine publication provides a tool for

finding good search terms for an advertiser's Website while getting rid of the bad ones (See, e.g., paragraph 0012.), while the present invention concerns determining one or more keywords (or some other serving constraints which may be used for ad targeting). However, there are significant, and patentable, differences between the Paine publication and the claimed invention.

#### ***The Paine Publication***

The Paine publication makes search term recommendations by (i) looking for good search terms directly on an advertiser's Website (referred to as "spidering"), and/or (ii) comparing an advertiser to other, similar, advertisers and recommending the search terms those other advertisers have chosen (referred to as "collaborative filtering"). In at least one embodiment, the output of the spidering step is used as input to the collaborative filtering step. (See, e.g., paragraph 0013.) These techniques are discussed with reference to Figures 10-20 of the Paine publication.

#### ***Spidering in the Paine Publication***

Spidering is a known technology for downloading a Website rooted at a uniform resource locator (URL). Specifically, a home page of the Website specified by the URL is downloaded and scanned for hyperlinks to other pages, which are similarly downloaded and scanned until the program reaches a predefined link depth, downloads a predetermined number of pages, or reaches some other stopping criterion. (See, e.g., paragraph 0096.)

Search terms may be determined from this spidering. The search terms may be scored using two factors -- (i)

how common a search term is on the World Wide Web, and (ii) how often users search for it. The search terms may then be sorted by either the score quality or by the number of times they have occurred in the downloaded pages. (See, e.g., paragraph 0097.)

As can be appreciated from the foregoing, determining search term recommendations from spidering simply uses terms found in the advertiser's Website, but not "categories".

#### ***Collaborative Filtering in the Paine Publication***

Generally, collaborative filtering is used to make recommendations based on user similarity. In the case of the Paine publication, collaborative filtering is used to make recommendations based on advertiser similarity in terms of search terms that they have used for their ads. More specifically, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric rating (e.g., 0 to 5) assigned to each entry in an advertiser/term table. An existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph 0102.)

Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good

search term for the new advertiser. (See, e.g., paragraph 0104.)

As can be appreciated from the foregoing, determining search term recommendations from search terms used by other advertisers using collaborative filtering does not use "categories."

***Combining Spidering and Collaborative Filtering in the Paine Publication***

Spidering and collaborative filtering may be used in combination. For example, spidering may provide recommended search terms which a new advertiser may accept or reject. Given such an initial list of accepted and rejected search terms (which may have ratings based on whether or not the terms were accepted or rejected), collaborative filtering may be used to provide an updated list of search terms which may be accepted or rejected by the new advertiser. Collaborative filtering may be run repeatedly based on the latest list of accepted or rejected search terms until the user is satisfied. (See, e.g., paragraphs 0107-0112 and Figure 10.)

As can be appreciated from the foregoing, determining search term recommendations using a combination of spidering and collaborative filtering does not use "categories."

***The Examiner's Interpretation of the Paine Patent***

The Examiner is apparently interpreting (1) accepting at least one category as reading on accepting the "spidering" results in the Paine publication, and (2) determining one or more keywords from using the accepted at least one category as reading on using the "spidering"



results to get "collaborative filtering" results in the Paine publication. To reach this conclusion, the Examiner is interpreting "**category**" to include keywords. However, in exemplary embodiments consistent with the present invention, each of a number of categories is associated with one or more keywords. Consequently, a category can be used to lookup one or more keywords. As one example, Figure 3 of the present application includes an index 350 in which a category 352 can be used as a key to obtain associated keywords 354.

The applicants continue to disagree with the Examiner's interpretation of "category". The ordinary meaning of category is a defined class in a classification system. In the context of the Internet and e-commerce, those skilled in the art appreciate that categories typically pertain to product and service categories. For example, the Website Amazon.com includes product categories including Books, Music, DVD, VHS, Magazines & Newspapers, Computer & Video Games, Software, Electronics, Audio & Video, Camera & Photo, Cell Phones & Service, Computers, Office Products, Musical Instruments, Home & Garden, Automotive, Bed & Bath, Furniture & Décor, Gourmet Food, Kitchen & Housewares, Outdoor Living, Pet Supplies, Tools & Hardware, Apparel & Accessories, Shoes, Jewelry & Watches, Beauty, Health & Personal Care, Sports & Outdoors, Toys & Games and Baby.

The use of the term "category" in the specification is consistent with the ordinary meaning of category and its meaning in the context of e-commerce. For example, in the illustrative example provided in § 4.3 of the specification, it is described that:

Category determinations operations 410  
may determine various, possibly relevant,  
categories (and possibly sub-categories)  
such as:

*automobiles ...*  
*computers ... operating systems ...*  
*music ... popular music ...*  
*music ... musical instruments ...*  
*animals ... mammals ... felines ...*  
*movies ... foreign films ...*  
*travel ... resorts ...*  
*sports & recreation ... snorkeling ... scuba ...*  
*sports & recreation ... football ...*  
*pets ... fish*

Page 25, lines 13-26. Embodiments consistent with the present invention use associations between categories and keywords to suggest appropriate keywords. Using categories allows the suggestion of irrelevant keywords (that might occur due to the fact that some words, like "Jaguar" for example, can have multiple meanings), to be avoided.

On the other hand, although the Paine publication also recommends or suggests search terms used when serving ads, it does not use *categories* as claimed. Rather, it uses spidering (which uses keywords found on a Website -- not categories) and/or collaborative filtering (which uses keywords from other advertisers considered to be similar to the new advertiser, not categories, based on their use of common keywords) as described above.

The Examiner uses the fact that "automobile" is used as an example of a search term in the Paine publication and a category in the present application in an attempt to prove that search terms and keywords are the same as categories. *However, the fact that a particular term might be used as a label representing a category does not*

mean that the same term, when used as a search term, represents a category. Thus, the applicants respectfully submit that the rejection rests on an improper interpretation of "category" -- one that violates Phillips v. AWH Corp., 75 U.S.P.Q.2d 1321 (Fed. Cir. July 12, 2005) (en banc) (referred to as "Phillips v. AWH" below). That is, when interpreting the term "category," the Examiner improperly ignores the specification as it would be interpreted by one of ordinary skill in the art. In Phillips v. AWH, the Court of Appeals for the Federal Circuit ("the CAFC") stated:

the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term."

Id., at 1327, quoting from Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

#### ***Patentable Features of the Claimed Invention***

Having introduced the Paine publication, various patentable features of the claimed invention are discussed.

As an initial matter, the Examiner alleges that the claimed category reads on a "word." In the Examiner's Answer, the Examiner uses the fact that "automobile" is used as an example of a search term in the Paine publication and a category in the present application in an attempt to prove that search terms and keywords are the same as categories. **However, the fact that a particular term might be used as a label representing a**

category does not mean that the same term, when used as a search term, represents a category. Specifically, the Examiner's argument is apparently that since certain words might sometimes be a label representing a category, a word is inherently a category. This is clearly improper under the well-established case law which requires that an anticipatory inherent feature or result be consistent, necessary and inevitable, not merely possible or probable. (See, e.g., Transclean Corp. v. Bridgewood Services, Inc., 62 U.S.P.Q.2d 1865 (Fed. Cir. 2002); See also, Eli Lilly & Co. v. Barr Laboratories, Inc., 58 U.S.P.Q.2d 1865 (Fed. Cir. 2001), cert. denied, 122 S.Ct. 913 (2002).) That is, the Examiner's allegation that a particular word might be used as a label representing a category constitutes, at best, a possible result (not a consistent, necessary, or inevitable result) under the applicable case law. A possible (or accidental) result does not constitute an anticipation.

The Examiner also argues that the Applicant's specification uses "category" and "keyword" interchangeably to perform the same functions, and as an example cites that keywords can be used to lookup categories and categories can be used to lookup keywords. The applicants respectfully disagree for reasons set forth below. In addition, the facts that (1) keywords can be used to lookup categories, and (2) categories can be used to lookup keywords does not make them equivalent. For example, a keyword can "belong to" one more categories, and a category may "include" one or more keywords. These are clearly different relationships.

The Examiner also alleges that the applicants never specifically define category. However, a specific definition is not required. In any event, as discussed on pages 16-19 of the Appeal Brief, the term "category" has an established definition in the art of electronic advertising and electronic commerce, and examples, consistent with this well-established meaning, are provided in the specification. Thus, the Examiner's interpretation of "categories" is inconsistent with both (1) the interpretation that one of ordinary skill in the art would have used and (2) the specification, and is therefore improper. (See MPEP 2111.)

To summarize, the claimed "categories" cannot be properly characterized as "keywords".

**Claims 1, 14, 42 and 55**

First, independent claims 1 and 42, as amended, recite controlling the serving of the advertisement using stored targeting keywords. This overcomes the Examiner's "mere intended use" based arguments on page 8 of the Examiner's Answer.

Independent claims 1, 14, 42, and 55 are not anticipated by the Paine publication because the Paine publication does not teach an act of (or means for) **looking up one or more keywords using a category**. Even assuming, arguendo, that "category" reads on the keywords returned by spidering in the Paine publication as alleged by the Examiner, these alleged categories are not used to **"look up"** keywords. To reiterate, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric

rating (e.g., 0 to 5) assigned to each entry in an advertiser/term (apparently, the Examiner interprets "term" as being read on by "category") table. An existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph 0102.) Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good search term for the new advertiser. (See, e.g., paragraph 0104.) ***This collaborative filtering process to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) is not using a category to lookup one or more keywords.*** Accordingly, independent claims 1, 14, 42, and 55 are not anticipated by the Paine publication for at least this reason.

The Examiner had argued that "looking up" is a broad term and that the Paine publication uses a word to look up other words. The applicants respectfully disagree.

First, "looking up" has a well-established meaning in the art (a function in which a previously constructed index or table of values is searched for a desired item or items of information), and the use of the term in the specification is consistent with this meaning in the art. Note also that dependent claims 5, 18, 31, 46, 59 and 72 recite that the lookup uses an index. Using an index is also consistent with this well-established meaning of

looking up in the art. Thus, the Examiner's interpretation of "lookup" or "looking up" is inconsistent with both (1) the interpretation that one of ordinary skill in the art would have used and (2) the specification, and is therefore improper. (See MPEP 2111.)

#### **Claims 86-88**

First, since claims 86 and 87 depend from claims 1 and 14, respectively, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to claims 1 and 19. Second, since claim 88 depends from claim 27, it is not anticipated by the Paine publication for at least the reasons discussed below.

Further, claims 86-88 recite a relationship between categories and keywords (or serving constraints) which would enable a lookup such as that discussed above. Specifically, these claims recite that each of the one or more categories is specifically associated with one or more keywords (or serving constraints). The use of collaborative filtering in the Paine publication to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) does not specifically associate the existing terms with the terms used by other advertisers. Therefore, claims 86-88 are not anticipated by the Paine publication for at least this additional reason.

The Examiner had argued that in the Paine publication, "if a program is able to get one set of terms from another set of terms, those two sets of terms

have to be inherently 'associated'." This argument ignores the fact that these claims further recite that **the association is used to lookup keywords**. That is, in claims 86 and 87, the association exists before the keyword(s) are looked up and provided (and **must exist before** since the association is used by the lookup). By contrast, in the Examiner's application of the Paine publication, the association **exists only after** the other set of terms is generated by the program.

***Claims 5, 18, 31, 46, 59 and 72***

First, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims 1, 14, 42 and 55.

Further, in rejecting dependent claims 5, 18, 31, 46, 59 and 72, the Examiner considered subaccounts as used in paragraph [0080] of the Paine publication to be different categories. (See Paper No. 20061008, page 4.) The applicants strongly disagree. First, Figure 9 and its corresponding description in paragraph [0080] merely concern the known notion of campaign number subaccounts. (Indeed, the main description of Paine's invention on which the presently claimed invention is alleged to read begins at paragraph [0093].)

***More importantly, the Examiner is interpreting "category" inconsistently to mean both "terms" and advertiser "subaccounts".*** The Court of Appeals for the Federal Circuit ("the CAFC") has instructed that to anticipate, a single prior art reference must "describe all of the elements of the claims, **arranged as in the [claim]**." (Emphasis added.) C.R. Bard Inc. v. M3



Systems, Inc., 48 U.S.P.Q.2d 1225, 1230 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 1804 (1999). This is in accord with previous Court of Claims and Patent Appeals ("the CCPA") decisions. For example, the CCPA has instructed that to anticipate:

[the] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [claimed invention] **without any need for picking, choosing and combining various disclosures not directly related to each other** by the teachings of the cited reference. [Emphasis added.]

In re Arkley, 172 U.S.P.Q. 524, 526 (CCPA 1972). This inconsistent interpretation of "category" to mean both "terms" and advertiser "subaccounts" in the Paine publication (both of which interpretations are improper, as demonstrated by the applicants) shows that the Paine publication does not describe all of the elements of the claims, **arranged as in the claim**.

The Examiner contends that (1) each "subaccount" identifies different keywords, and (2) keywords are categories, and therefore (3) subaccounts are categories. (Paper No. 20061008, page 9.) The Examiner's logic is flawed. Using the Examiner's logic, if a "shopping list" identifies different "groceries", one of which (e.g., "wine") might also be a category label, then a "shopping list" is "wine". As the foregoing simple example demonstrates, the logic upon which the Examiner's rejection rests is fatally flawed.

Accordingly, dependent claims 5, 18, 31, 46, 59 and 72 are not anticipated by the Paine publication for at least this additional reason.

**Claims 6, 19, 32, 47, 60 and 73**

First, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims **1, 14, 42 and 55**.

Further, in rejecting claims 6, 19, 32, 47, 60 and 73, the Examiner contends that the third sentence of the Abstract of the Paine publication teaches performing qualification testing of one or more keywords to determine if a keyword is qualified or unqualified for use as an ad targeting keyword, and providing qualified keywords as ad targeting keywords. (See Paper No. 20061008, page 5.) The applicants respectfully disagree.

The cited portion of the Paine publication merely introduces the collaborative filtering technique of "comparing an advertiser to other, similar advertisers and recommending the search terms the other advertisers have chosen." (Abstract) Frankly, the applicants cannot fathom how this can be construed as the claimed "**qualification testing**" to see if a keyword is qualified or unqualified for use as an ad targeting keyword. The specification of the present application provides an example of such **qualification testing**, stating:

Figure 8 is a flow diagram of an exemplary method 800 that may be used to try keywords for qualification as targeting keywords in a manner consistent with the present invention. A keyword (or more than one keyword) is accepted. (Block 810). The trial operations may use one or more keywords as targeting keywords in the serving of an ad (or even a group of ads) (Block

820) and the performance of such ads may be tracked (Block 830). In one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused. After a certain amount of time and/or after a certain number of such ad serves, various branches of the method 800 may be performed responsive to various different performance levels. If a keyword performs well (e.g., in general, or for a particular category), it may be marked as a keyword to be suggested, and/or as a qualified keyword (e.g., in general, or for the particular category) (Block 850) before the method 800 is left (Node 870). In fact, generic creatives (for example, creative templates with certain advertiser information inserted) with qualified targeting keywords could be subject to expedited approvals. If, on the other hand, a keyword does not perform well (e.g., in general, or for a particular category), it may be disqualified and marked as unusable (e.g., in general, or for the particular category) (Block 860) before the method 800 is left (Node 870). In this way, advertisers can avoid the frustration of targeting their ads using poorly performing keywords. Although not shown, keywords can be assigned various different status levels associated with various different levels or performance. In one embodiment, performance for one or more keywords may be considered to be good if ads served pursuant to using the keyword(s) as targeting keywords perform (e.g., have a click-through rate) comparable to what salespeople and/or customers already think are the best keywords (e.g., the keywords that they are already using).

Page 22, line 25 through page 23, line 20. As this example demonstrates, the Examiner's interpretation of "~~qualification~~ testing" is inconsistent with how one skilled in the art would interpret this term, in light of the specification.

Thus, claims 6, 19, 32, 47, 60 and 73 are not anticipated by the Paine publication for at least this additional reason.

The Examiner had argued that the applicants do not specifically define the term "qualification testing," dubs himself as "one skilled in the art," and concludes, without substantiation, that his own broad definition of "qualification testing" is appropriate.

The applicants have noted that the specification contains an example of qualification testing. This example is consistent with the meaning that one of ordinary skill in the art at the time of the invention would have used. The Examiner's unsubstantiated assertion that he is skilled in the art frankly does not properly establish the level of ordinary skill in the art at the time of the invention. (Is the Examiner of ordinary or extraordinary skill? When did the Examiner acquire this skill? Was it at the time of the invention?) The applicants have provided evidence of how one of ordinary skill in the art at the time of the invention would interpret "qualification testing." In contrast, the Examiner has made a bald assertion of his opinion.

**Claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77**

First, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims 1, 6, 14, 19, 32, 42, 47, 55, 60 and 73.

Further, in rejecting claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77, the Examiner simply alleges that the performance of ads served using targeting keywords is tracked, citing paragraph [0087] of the Paine publication. (See Paper No. 20061008, page 5.) However, merely **tracking performance** does not teach using such performance for purposes of **performing qualification testing** of keywords. Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

**Claims 27, 40, 41, 68, and 81-84**

First, independent claims 27 and 68, as amended, recite controlling the serving of the advertisement using stored targeting keywords. This overcomes the Examiner's "mere intended use" based arguments on page 8 of the Examiner's Answer.

Independent claims 27 and 68 recite determining a category using accepted ad information, and looking up one or more serving constraints using the category determined. In rejecting these claims, the Examiner contends that since the Paine publication teaches collaborative filtering, "[b]y comparing an advertiser to other similar advertisers..., the system would have to determine the initial advertiser's product category." Paper No. 20061008, page 5. The applicants respectfully disagree.

In the Paine publication, advertiser similarity of two advertisers is a function of terms used by the advertisers and the advertisers' ratings of those terms. (See, e.g., paragraphs [0099] through [0106] of the Paine publication.) More specifically, the Paine publication computes a Pearson correlation for use as a measure of similarity. (See, e.g., paragraphs [0102] and [0103] of the Paine publication.) This has nothing to do with determining an initial advertiser's product category as alleged by the Examiner.

Thus, claims 27, 40, 41, 68 and 81-84 are not anticipated by the Paine publication for at least this additional reason.

**Claims 29, 30, 70 and 71**

First, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to claims 27 and 68.

Further, in rejecting dependent claims 29, 30, 70 and 71, the Examiner considered an advertiser Website as discussed in the Paine publication to contain ad creative information. (See Paper No. 20061008, page 4.) Although an advertiser Website might be linked to an ad, these claims recite that the ad includes ad creative information for rendering the ad and an address of a landing Webpage linked from the ad. This distinguishes the ad (and ad creative information) from an advertiser Website. Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

The Examiner had stated:

Applicant argues "although an advertiser website might be linked to an ad, these claims recite that the ad includes ad creative information for rendering the ad and an address of a landing webpage linked from the ad". The Examiner would like to point out that the Applicant is limiting an advertisement that has not been claimed.

(Examiner's Answer, pages 12 and 13) These claims further require that the ad landing page or ad creative **is used to determine the category** (which is used to lookup the keyword(s), at least some of which are provided as one or more ad targeting keywords). These further features are ignored.

**Rejections under 35 U.S.C. § 103**

Claims 2, 11-13, 15, 24-26, 28, 37-39, 43, 52-54, 56, 65-67, 69 and 78-80 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication. The applicants respectfully request that the Examiner reconsider and withdrawn this ground of rejection in view of the following.

As an initial matter, the Examiner had argued, "KSR [KSR International Co. v. Teleflex Inc., 82 U.S.P.Q.2d 1385 (2007)] forecloses the argument that a specific teaching is required for a finding of obviousness." (See Examiner's Answer, page 15.) However, in KSR, the Supreme Court did note that although not strictly required, the teaching-suggestion-motivation ("TSM")

rationale is still informative and still may be used. In any event, the Examiner did not even:

- (A) combine prior art elements according to known methods to yield predictable results;
  - (B) show a simple substitution of one known element for another to obtain predictable results;
  - (C) use a known technique to improve similar devices (methods, or products) in the same way;
  - (D) apply a known technique to a known device (method, or product) ready for improvement to yield predictable results;
  - (E) choose from a finite number of identified, predictable solutions, with a reasonable expectation of success (''Obvious to try'');
  - (F) provide a variation of known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; or
  - (G) show TSM to arrive at the claimed invention.
- Instead, the Examiner provided a "**could be theorized**" standard to address a problem not even contemplated by the Paine publication.

Although the Examiner alleges that the proposed modification is "common sense", such common sense can only be applied once the nature of the problem addressed by the claimed invention is appreciated. The Paine publication does not appreciate the nature of the problem addressed by these claims. Thus, the Paine publication does not render these claims unpatentable since it does not even contemplate the nature of the problem to be



solved. (See, e.g., Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U.S. 45 (1923).)

**Claims 2, 15, 28, 43, 56 and 69**

In rejecting claims 2, 15, 28, 43, 56 and 69, the Examiner contends that the Paine publication uses a list of good words for an advertiser's Website and a list of negative keywords that have no relation to the advertiser's Website, and concludes that it would have been obvious to one skilled in the art to include negative keywords because doing so would allow more accuracy in relation to relevant keywords. (See Paper No. 20061008, page 6.)

First, the modification of the Paine publication proposed by the Examiner would not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 2, 15, 28, 43, 56 and 69, respectively, directly or indirectly depend) discussed above. Therefore, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, one skilled in the art would not have been motivated to modify the Paine publication as proposed by the Examiner. Specifically, the positive and negative scores assigned to keywords is used in the context of collaborative filtering for determining whether a new advertiser is similar to an existing advertiser. This has nothing to do with the use of negative keywords for controlling the serving of ads. Further, in addition to the fact that the Examiner provides no obvious reason in the art for the proposed modification, the applicants note that the use of **negative scores** in the Paine

publication is not relevant to **negative keywords** in the present claims. Consequently, claims 2, 15, 28, 43, 56 and 69 are not rendered obvious by the Paine patent for at least this additional reason.

**Claims 11, 24, 37, 52, 65 and 78**

Regarding claims 11, 24, 37, 52, 65 and 78, the Examiner concedes that the Paine publication does not discuss the type of ad space that will be used for the ad on a search site. To compensate for this admitted deficiency of the Paine publication, the Examiner argues that it is well-known that when a new ad is added to a search page, it will be added to an ad spot that would have otherwise been unused, and concludes that it would have been obvious to one skilled in the art to specify that the advertisement is to be served on a portion of a Webpage that would otherwise have been unused, because this would keep the operator of the search site from overlapping other information with an ad. (Paper No. 20061008, page 6.)

First, even assuming, arguendo, that one skilled in the art would have been motivated to modify the Paine publication as proposed by the Examiner, since the proposed modification of the Paine publication would not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 11, 24, 37, 52, 65 and 78, respectively, indirectly depend) discussed above, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, the invention recited in these claims concerns qualification testing of keyword (or serving

constraint) recommendations. (See, e.g., Figure 8 of the present application.) As stated, "In one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused." Page 22, line 30 through page 23, line 1. In this way, testing of keyword recommendations has a minimal impact on the system.

As used in the art, the term "**ad spot**" means a portion of a document, such as a Web page, available to show ads -- it does not mean any spot on a document. As described in the specification:

Suppose that the Web page has ten (10) ad spots and ten (10) ads are served. In this case, there are no unused ad spots, and the information 560 need not be updated. If, however, the Web page has ten (10) ad spots and only three (3) ads are served, there are seven (7) unused ad spots.

Page 20, lines 4-8.

Finally, the Examiner's conclusion that **when a new advertisement is added to a search page, it will be added to an ad spot that would otherwise be unused is false**.

Often times there are a great number of eligible ads competing to be placed on an ad spot. If an ad (ad A) is served, it is very often the case that another ad (ad B) losses out to ad A, and ad B would otherwise have been served if not for ad A. (Indeed, this is the reason why advertisers submit bids for ad spots. If the ad spots were necessarily otherwise unused, advertisers could bid

nothing or a nominal amount and yet be guaranteed to be served.)

Attempting to rebut the fact established by the applicant, the Examiner contends that "a web page developer would not put 2 advertisements on top of one another in the interest of both items being viewable." (Paper No. 20061008, page 9.) However, the Examiner's position ignores the fact, understood by those skilled in the art, that an advertisement can "displace" another advertisement from an ad spot. Thus, the claims reflect a preference to serve the advertisements in instances where there would be empty ad spots over instances where another advertisement would be displaced.

Thus, claims 11, 24, 37, 52, 65, 69 and 78 are not rendered obvious by the Paine publication for at least this additional reason.

**Claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80**

In rejecting claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80, the Examiner concedes that the Paine publication does not teach ordering ads based on an amount left in unused inventory. To compensate for this admitted deficiency, the Examiner argues that it would have been obvious to one of ordinary skill in the art that the Webpage owner would want to recommend keywords to a paying advertiser for which there were more spots available to ensure that less ad spots would be unpaid for. (See Paper No. 20061008, page 6.)

First, even assuming, arguendo, that one skilled in the art would have been motivated to modify the Paine publication as proposed by the Examiner, the proposed modification of the Paine publication would not

compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 27, 42, 55 and 68 (from which claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80 indirectly depend) discussed above. Thus, these claims are not rendered obvious by the Paine publication for at least this reason.

Second, these claims pertain to qualification testing of targeting keywords. Therefore, these claims are not rendered obvious by the Paine publication, as discussed above, for at least this additional reason.

Third, by ordering keywords based on number of unused ad spots associated with the keywords these claims provide advantages not even contemplated by the Paine publication. For example, "keywords that, if used as targeting keywords, would fill many otherwise unused ad spots may be preferred over those that would fill few otherwise unused ad spots." Page 19, lines 28-30 "In this way, keywords that, if used as targeting keywords, would fill more ad spots may be considered first." Page 21, lines 27 and 28.

This amendment incorporates by reference, the earlier Appeal Brief filed on June 25, 2007 and the Reply Brief filed on November 5, 2007. Accordingly, the arguments presented in this amendment are intended to **supplement, not replace**, arguments presented in the earlier filed Appeal Brief and Reply Brief.

### Conclusion

In view of the foregoing amendments and remarks, the applicants respectfully submit that the pending claims are in condition for allowance. Accordingly, the

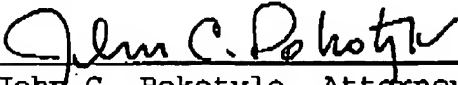
applicants request that the Examiner pass this application to issue.

Any arguments made in this amendment pertain **only** to the specific aspects of the invention **claimed**. Any claim amendments or cancellations, and any arguments, are made **without prejudice to, or disclaimer of**, the applicants' right to seek patent protection of any unclaimed (e.g., narrower, broader, different) subject matter, such as by way of a continuation or divisional patent application for example.

Since the applicants' remarks, amendments, and/or filings with respect to the Examiner's objections and/or rejections are sufficient to overcome these objections and/or rejections, the applicant's silence as to assertions by the Examiner in the Office Action and/or to certain facts or conclusions that may be implied by objections and/or rejections in the Office Action (such as, for example, whether a reference constitutes prior art, whether references have been properly combined or modified, whether dependent claims are separately patentable, etc.) is not a concession by the applicant that such assertions and/or implications are accurate, and that all requirements for an objection and/or a rejection have been met. Thus, the applicant reserves the right to analyze and dispute any such assertions and implications in the future.

Respectfully submitted,

February 9, 2009

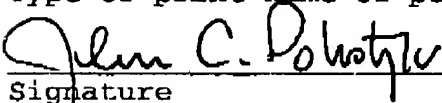
  
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February 9, 2009  
Date